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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LEE, JOHN J

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/747,962	Applicant(s) UMEDA ET AL.	
	Examiner JOHN J LEE	Art Unit 2684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-34 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 and 34 is/are allowed.
- 6) ☒ Claim(s) 21-24, 26-31 and 33 is/are rejected.
- 7) ☒ Claim(s) 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/16/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 21 – 34 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re claim 29: the limitation "CIRs" should be explained for clear understanding.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 21, 22, and 26-31** are rejected under 35 U.S.C. 102(e) as being anticipated by Ejzak et al. (US Patent number 6,069,883).

Regarding **claims 21 and 30**, Ejzak discloses that a communication system (Fig. 1 and column 3, lines 44 – column 4, lines 19). Ejzak teaches that a mobile station (1.1, 2.1 in Fig. 1) and a base station (1, 2 Fig. 1) connected via one or a plurality of radio channels for communication (Fig. 1 and column 3, lines 44 – column 4, lines 19, where

teaches communicating between mobile station and base station with multiple channels).

Ejzak teaches that the base station (base station in Fig. 4) including traffic measuring (measuring traffic load condition see Fig. 7) means for measuring traffic of said one or a plurality of radio channels in the mobile communication system (Fig. 7, 12 and column 13, lines 19 – 35, where teaches load measurements collected at the base station). Ejzak teaches that rate setting means for changing a transmission bit rate (abstract, Fig. 4, 16, and column 4, lines 58 – column 5, lines 21, where teaches setting the data bit rate for users). Ejzak teaches that control means for determining the transmission bit rate based in the traffic measured by said traffic measuring means (Fig. 1, 4, 16, column 6, lines 4 – 58, and column 9, lines 22 – column 10, lines 15, where teaches determining the bit rate based on the measuring traffic load information). Ejzak teaches that signal multiplexing means for transmitting to the mobile station (1.2, 2.2 in Fig. 1) control information containing information about the transmission bit rate determining by said control means (Fig. 4, column 1, lines 47 – column 2, lines 67, and column 9, lines 22 – column 10, lines 64, where teaches the base station transmits control information to the mobile station including determined transmission data rate in CDMA system). Ejzak teaches that the mobile station (1.2, 2.2 in Fig. 1) comprising communication means for communicating with the base station (1, 2 in Fig. 1) in accordance with said information about the transmission bit rate received from the base station (Fig. 2, 4 and column 4, lines 58 – column 5, lines 49, where teaches a base station transmits digital information to mobile station and mobile station receives the information and demodulating the information to obtain a channel bit rate signal).

Regarding **claim 22**, Ejzak discloses that communication quality measurement means for measuring a communication quality of said one or a plurality radio channels in use in said system (Fig. 3, 4 and column 7, lines 32 – column 8, lines 57, where teaches admission control in the base station measures and generates interference (quality of service)). Ejzak teaches that the control means including means for determining a transmit power of the mobile station based on both the measured traffic and the measured communication quality (Fig. 4, 6, 7 and column 9, lines 21 – column 10, lines 64, where teaches measures the interference (quality) and checks traffic load condition to determine for setting the pilot power strength). Ejzak teaches that the control information, transmitted to the mobile station by said signal multiplexing means, includes information for controlling a transmit power of the mobile station (Fig. 4, column 1, lines 47 – column 2, lines 67, and column 9, lines 22 – column 10, lines 64, where teaches the base station transmits control information to the mobile station including determined transmission control power information in CDMA system). Ejzak teaches that the communication means of the mobile station including means for determining the transmit power based on said control information received from base station (Fig. 2, 4 and column 4, lines 58 – column 5, lines 49, where teaches a base station transmits digital information to mobile station and mobile station receives the information and demodulating the information to obtain the transmit power).

Regarding **claim 26**, Ejzak discloses that the one or plurality of radio channels use a CDMA communication scheme, and said control means includes means for determining a CDMA spreading gain (Fig. 1 and column 3, lines 44 – column 4, lines 57).

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Regarding **claim 27**, Ejzak discloses that the control means comprises means for transmitting identical information bits a plurality of times (column 17, lines 63 – column 18, lines 27, Fig. 16, and column 21, lines 25 – 60).

Regarding **claim 28**, Ejzak discloses that the one or plurality of radio channels uses a CDMA communication scheme, said traffic measuring means includes means for measuring an entire level of the radio channels (Fig. 7, 12, column 13, lines 19 – 35, and column 9, lines 22 – column 10, lines 15).

Regarding **claim 29**, Ejzak discloses that the communication quality is one or a plurality of received CIRs of one or a plurality of signals transmitted over one or the plurality of radio channels (column 3, lines 44 – column 4, lines 19, Fig. 1, 4, and column 7, lines 32 – column 8, lines 57).

Regarding **claim 31**, Ejzak discloses all the limitation, as discussed in claims 1 and 2.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 23, 24 and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ejzak in view of Salonaho et al. (US Patent number 6,173,187).

Regarding **claims 23, 24 and 33**, Ejzak discloses all the limitation, as discussed in claims 1 and 2. Furthermore, Ejzak further discloses that transmitting to the mobile station control information containing the transmission bit rate reduced in the reducing step (column 14, lines 16 – column 15, lines 27 and Fig. 12, 16, where teaches the base station send an assignment message (control information) to mobile station for instructing transmission rate and power).

Ejzak does not specifically disclose the limitation “reducing a transmission bit rate when the traffic measured in the measuring step is larger than a predetermined value and the communication quality of the one or plurality of radio channels in use is degraded below a predetermined level”. However, Salonaho discloses the limitation “reducing a transmission bit rate when the traffic measured in the measuring step is larger than a predetermined value and the communication quality of the one or plurality of radio channels in use is degraded below a predetermined level” (column 3, lines 18 – column 4, lines 19, Fig. 1, 3, 4, column 6, lines 1 – 62, and column 2, lines 25 - 51, where teaches the traffic load can preferably be changed by changing the data transmission rate and the heavy load situations, the connection quality declines below the minimum requirements as signal quality change with a load result change). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Ejzak system as taught by Salonaho, provide the motivation to enhance the communication reliability and improving communication quality in mobile communication system.

Allowable Subject Matter

7. Claims 32 and 34 are allowed.

Claims 32 and 34 are allowable over the prior art of record because a search does not detect the combined claimed elements as set forth in the claims 32 and 34.

As recited in independent claims 32 and 34, none of the prior art of record teaches or fairly suggests that transmitting a signal which proposes to the base station that a transmission bit rate of the mobile station is reduced, when traffic of said one or plurality of radio channels in use is larger than a predetermined value and the mobile station is instructed, for a predetermined period after a transmit power has reached a maximum transmit power, to increase the transmit power by the base station, and reducing the transmission bit rate when a control signal to instruct the mobile station to reduce the transmission bit rate is received from the base station, and together with combination of other element as set forth in the claims 32 and 34.

8. Claim 25 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose “the mobile station is configured to transmit a signal that requests the base station to decrease the transmission bit rate, when the traffic of the one or plurality of radio channels in use is smaller than a predetermined value and a command to increase a transmit power beyond a maximum transmit power is received from the base station continuously over a predetermined period” as specified in the claim 25.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hakkinen (US Patent number 5,839,056) discloses Controlling Transmission Power of a Radio Transmitter.

Olofsson et al. (US Patent number 6,668,159) discloses Terminal Bitrate Indicator.

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Information regarding...Patent Application Information Retrieval (PAIR) system...
at 866-217-9197 (toll-free)."

Any response to this action should be mailed to:

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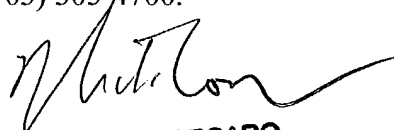
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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **John J. Lee** whose telephone number is **(703) 306-5936**.
He can normally be reached Monday-Thursday and alternate Fridays from 8:30am-5:00
pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, **Nay**
Aung Maung, can be reached on **(703) 308-7745**. Any inquiry of a general nature or
relating to the status of this application should be directed to the Group receptionist
whose telephone number is (703) 305-4700.

J.L
September 9, 2004



NICK CORSARO
PRIMARY EXAMINER

John J Lee